7-14-05

Express Mail No. ED 678 549 984 US

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.

: 09/964,927

Confirmation No. : 2183

First Applicant

Wil McCarthy

Art Unit

2874

Filed

26 September 2001

Examiner

: Daniel J. Petkovsek

Title

Fiber incorporating quantum dots as programmable dopants

Docket No.

027-040001US

Customer No.

: 33486

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- 1. Transmittal Form (1 page);
- 2. Applicant Initiated Interview Request Form (1 page);
- 3. Interview Summary (3 pages);
- 4. Amendment and Response (11 pages);
- 5. this Certificate of Mailing by "Express Mail' (37 CFR 1.10) (1 page); and
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PTO/SB/21 (09-04)
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E		Application Number	09/964,927					
TRANSMITTAL FORM		Filing Date	26 September 2001					
		First Named Inventor	Wil McCarthy					
3 2005 5		Art Unit	2874					
(to ball sed for all correspondence after initial filing)		Examiner Name	Daniel J. Petkovsek					
(to be seed for all correspondence after initial filing)		Attorney Docket Number	027-040001US					
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Amendment/Reply  After Final		Petition Petition to Convert to a Provisional Application		(Appea	I Communication to TC Il Notice, Brief, Reply Brief) etary Information			
Affidavits/declaration(s)  Extension of Time Request		Power of Attorney, Revocation Change of Correspondence Address  Terminal Disclaimer		Status Other below)	Enclosure(s) (please Identify			
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	SIGNATURE O	F APPLICANT, ATTO	RNEY, OR AG	ENT				
Firm Name Heimbacher &	Assoc., LLC							
Signature	Hallenbae							
Printed name Brad J. Hatten	nbach		-	-				
Date 13 July 2005		F	Reg. No. 42,64	2				
I hereby certify that this correspo sufficient postage as first class me the date shown below:	ondence is being facsi	CATE OF TRANSMISS mile transmitted to the USPT dressed to: Commissioner for	O or deposited wit	h the Un x 1450, /	ited States Postal Service with Alexandria, VA 22313-1450 on			
Signature								
Typed or printed name				Date				

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PTOL-413A (09-04)
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

	Applican	t Initiated Intervi	iew Request l	Form				
Application No.: 09/964,927 Examiner: Daniel Petkovsek		First Named Applicant: McCarthy, Wil Art Unit: 2874 Status of Applicate		il olication: Pendi	ation: Pending - Under Final			
Tentative Participants: (1) Brad J. Hattenbach		(2) Daniel Petkovse	ek					
(3) John D. Lee		_ (4)						
Proposed Date of Interview: 22 June 2005			Proposed Ti	ime: 11:00 a.m	(AM/PM)			
Type of Interview I (1) [x] Telephonic	Requested: (2) [ ] Perso	nal (3)[] Vide	o Conference	EDT				
Exhibit To Be Show If yes, provide brief		ted: [ ] YES	[x] <b>NO</b>		_			
Issues To Be Discussed								
Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior	Discussed	Agreed	Not Agreed			
(1) Rejections	All Pending	Art Yerushalmi et al.	[x]	[]	[]			
(2)			[]	[]	[]			
(3)			[]	[]	[]			
(4) [ ] Continuation Sh	eet Attached	<del></del>	[]	[]	[]			
	not an effective p	oe Presented: rior art reference becau the necessary priority		tter relied upor	in Yerushalmi			
NOTE: This form si (see MPEP § 713.01). This application will interview. Therefore as soon as possible.	not be delayed fro applicant is advi	above-identified applied by applicant and subnomissue because of applicant to file a statement of	nitted to the exami cant's failure to su the substance of t	ner in advance abmit a written his interview (3	record of this 7 CFR 1.133(b))			
Applicant/Applic Brad J. Hattenback Typed/Printed Nam 42,642 Registratio	h	Representative	Exan	niner/SPE Sign	ature			

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Spplication No. : 09/964,927

Confirmation No. : 2183

**Applicants** 

McCARTHY, Wil

Art Unit : 2874

SNYDER, Gary E.

Filed

26 SEPTEMBER 2001

Examiner

: Daniel J. Petkovsek

Title

: Fiber incorporating quantum dots as programmable dopants

Docket No.

: 027-040001US

Customer No.

33486

Mail Stop After Final Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## **INTERVIEW SUMMARY**

Pursuant to 37 C.F.R. § 1.133(b), the following is a summary of an interview between the undersigned attorney for Applicants and examiners Daniel J. Petkovsek and SPE John D. Lee that occurred on 22 June 2005. An Applicant Initiated Interview Request Form is enclosed herewith as the interview request was scheduled by telephone.

The interview was conducted with regard to the final Office action dated 8 June 2005 in U.S. Patent application no. 09/964,927.

The Office's prima facie burden for presenting an anticipation rejection was initially discussed, specifically in the context of reaching back to a priority document to support an earlier effective date than the filing date or publication date of the reference asserted. The examiners stated their understanding that in order to support a rejection, the subject matter meeting limitations of the claims must be found in the priority document as well as in the cited reference.

Attorney for Applicants noted that the rejections as stated in the first Office action after withdrawal based on U.S. application publication no. 2003/0107927 to Yerushalmi et al. (the '927 publication) were not entitled to the priority date of a counterpart provisional application filing, U.S. provisional application no. 60/274,635. Attorney for Applicants' noted that the rejections are based on subject matter in the '927 publication that is not found in the '635 application.

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There was a discussion about whether Applicants' obligation to "fully respond" to the Office action included responding to each "substantive" ground for rejection of each claim. Attorney for Applicants asserted that there was no such obligation when a prima facie case had not been presented and the reference was not entitled to an earlier effective date for the subject matter cited.

The discussion next concerned the proper definition of a "quantum dot." Attorney for Applicants questioned the source of the definition as there was no attribution for the definition in the final Office action. The examiners stated that their definition of a quantum dot was taken from U.S. Patent No. 5,530, 263, which was not cited and is not a reference of record in the prosecution of this application. The examiners' definition omitted the most significant attribute of a quantum dot, namely that the structure must confine one or more electrons in three dimensions within a potential barrier.

The examiners suggested that a quantum dot could be a single atom with alterations to its valence shells. Attorney for Applicants corrected this misunderstanding by explaining that a quantum dot is not an atom at all, and while it confines a collection of electrons or other charge carriers, there is no nucleus to a quantum dot.. Because of the small size of the confinement area, the electrons organize themselves as if they were valence shells similar to surrounding the nucleus of an atom. However, there are no protons about which the electrons revolve.

The claims were next discussed in view of the '635 application. Attorney for Applicants asserted out that none of the elements of the rejected claims could be found in the '635 application. Attorney for Applicants identified a list of terms used in the claims of the present application, most significantly "quantum dot," that cannot be found in the '635 application. Attorney for Applicants also discussed how the "molecular engine" discussed in the '927 publication, and equated to Applicants' invention in the Office action, was an entirely different structure.

The interview concluded and SPE Lee he felt that the examiners had a better understanding of the subject matter of the invention. SPE Lee further stated that he would assure that Applicants' written response to the final Office would be allocated a thorough and substantive review.

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Interview Summary Dated: 13 July 2005 Attorney Docket No.: 027-040001US

Respectfully submitted this day of July 2005.

Brad J. Hattenbach, Esq. Registration No. 42,642 Customer No. 33486

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cc: Client Docketing